Storm Data and Unusual Weather Phenomena - March 2012

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details

LAKE MICHIGAN

SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 0.9 NNE PORT WASHINGTON [43.39, -87.86]

03/10/12 10:30 CST	1	0	Marine Strong Wind (EG 34 kt)
03/10/12 10:30 CST		0	Source: C-MAN Station

See episode narrative.

Direct Fatalities: M??IW

An experienced kayaker battered by buffeting winds and high waves was thrown from his kayak and drowned on Lake Michigan (directly-related fatality), just northeast of the Port Washington marina. Strong low pressure moving across southern Canada created a tight pressure gradient over Lake Michigan. This tight pressure gradient helped cause strong, gusty south winds over the near shore waters of Lake Michigan. Sustained winds at the Port Washington GLOS observing station were 10 to 20 knots with frequent gusts of 20 to 30 knots. This Port Washington observing station is partially shielded by nearby terrain so does not alway reflect actual wind speed velocities. Farther north, the Sheboygan C-MAN station maintained by GLOS recorded much stronger winds at the time of the incident, with gusts of 35 to 40 knots.

WISCONSIN, Southeast

(WI-Z046) MARQUETTE, (WI-Z056) SAUK, (WI-Z062) IOWA, (WI-Z067) LAFAYETTE

03/02/12 11:00 CST		0	Winter Weather
03/02/12 20:00 CST		0	

Deepening surface low pressure produced a swath of wet snow accumulations of 3 to 6 inches along with gusty northerly winds over parts of southcentral Wisconsin during the afternoon and evening of March 2nd. The low pressure responsible for this event deepened rapidly in response to a vigorous upper level short wave that crossed the western Great Lakes region. The surface low tracked from Missouri, across northern Illinois, to Lower Michigan during the afternoon and evening hours. Western sections of South Central Wisconsin were on the edge of the heaviest snowfall...but instability aloft was sufficient to produce elevated convection and thunder-snow. Brief snowfall rates between 1.5 and 2 inches per hour were common at the height of the event during the evening rush hour. The tight pressure gradient around the deep surface low produced gusty northeast to north winds up to 40 mph which occasionally reduced visibilities to near zero in the heavy snow. The heavy, wet snow collected on power lines and tree limbs, causing them to snap. There were numerous crashes and spin-outs during the storm. Refer to associated March 2nd Winter Storm event over the remainder of southcentral and southeast Wisconsin.

(WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z066) MILWAUKEE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA

03/02/12 12:00 CST		0	Winter Storm
03/02/12 22:23 CST		0	

Deepening surface low pressure produced a swath of heavy, wet snow along with gusty northerly winds over much of southcentral and southeast Wisconsin during the afternoon and evening of March 2nd. The low deepened rapidly in response to a vigorous upper-level short-wave that crossed the western Great Lakes region. The surface low tracked from Missouri, across northern Illinois, to Lower Michigan during the afternoon and evening hours. A warm vertical temperature profile allowed the precipitation to begin as rain in far Southeast Wisconsin...with snow elsewhere across the southern portion of the state. The rain quickly changed over to snow late in the afternoon...with instability aloft sufficient to produce elevated convection and thunder-snow over southeast Wisconsin. Snowfall rates between 1.5 and 2 inches per hour were common at the height of the event during the evening rush hour. Snowfall totals were between 5 and 7 inches...with a few 8 and 9 inch reports in western Sheboygan County. The tight pressure gradient around the deep surface low produced gusty northeast to north winds up to 40 mph (35 knots) which occasionally reduced visibilities to near zero in the heavy snow. The heavy, wet snow collected on power lines and tree limbs, causing some to snap. At one point, We Energies utility estimated 15,000 customers lost electrical power in southeastern Wisconsin. There were numerous vehicle crashes and spin-outs during this event. A few minor injuries were reported, including a school bus crash in Walworth County that sent a high-school student to the hospital with a head injury.

(WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z066) MILWAUKEE, (WI-Z068) GREEN, (WI-Z072) KENOSHA

03/10/12 13:30 CST		16K	Strong Wind (MAX 41 kt)
03/10/12 17:00 CST		0	

Storm Data and Unusual Weather Phenomena - March 2012

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details

A tight pressure gradient around strong low pressure tracking across southern Canada produced gusty southwest winds over southern Wisconsin during the day on March 10th. The surface gradient winds were enhanced by a 40-knot low level jet that mixed down to the surface during maximum daytime heating. Sustained wind speeds were between 30 mph and 35 mph (26 to 30 knots), with gusts of 40 to 47 mph (35 to 41 knots). There were scattered reports of snapped power-lines due to the impact of fallen tree branches.

RACINE COUNTY --- KANSASVILLE [42.68, -88.12]

	03/12/12 11:38 CST	0	Hail (1.00 in)
	03/12/12 11:38 CST	0	Source: Trained Spotter

RACINE COUNTY --- UNION GROVE [42.68, -88.05]

	03/12/12 11:42 CST	0	Hail (1.00 in)
	03/12/12 11:42 CST	0	Source: Public

RACINE COUNTY --- CALEDONIA [42.80, -87.93]

	03/12/12 12:01 CST	0	Hail (1.75 in)
	03/12/12 12:01 CST	0	Source: Law Enforcement

Isolated, out-of-season severe weather occurred over Racine County in southeast Wisconsin on March 12, 2012. One of the cells in a line of storms pulsed up and produced large hail...up to golf ball size (1.75 inches) in diameter near Caledonia... over northern portions of Racine County. As the storm moved northeast in Milwaukee County it weakened and produced smaller hail. The smaller hail reportedly covered the ground in Oak Creek in southern Milwaukee County. A relatively warm and moist air mass for mid-March...with temperatures in the mid to upper 50s and dew points in the lower 50s...spread into far Southeast Wisconsin ahead of a surface trough during the late morning hours of March 12th. The resulting instability produced storms over the southeast corner of Wisconsin back to the southwest into northeast Illinois. Mean layer CAPE values were only between 200 and 500 J/kg, but surface-based Lifted Index values ranged between 0C and -1C. A narrow zone of forcing for ascent on the southern edge of a closed upper low combined with low-level convergence along the surface trough to produce the line of showers and thunderstorms. There was strong wind shear with 0 to 3km shear of 40 to 50 knots, sufficient to produce rotating updrafts.

ROCK COUNTY --- 1.0 NE ORFORDVILLE [42.64, -89.24]

	03/17/12 05:35 CST	0	Hail (0.75 in)
	03/17/12 05:35 CST	0	Source: Trained Spotter

Convergence and moisture advection along the leading edge of an 850-mb wind maximum ahead of a short-wave trough combined with an unstable atmosphere in place over the region due to record-breaking warmth to produce pulse thunderstorms over southern Wisconsin during the early morning hours of March 17th. The strongest storms produced small hail up to 3/4 inch in diameter, and brief heavy downpours of rain in Rock County.

(WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA

	03/23/12 17:00 CST	0	Dense Fog
	03/24/12 10:15 CST	0	

Light winds and abundant low-level moisture from earlier rains aided in producing widespread dense fog over much of southern Wisconsin during the overnight hours of March 23rd. A light northeasterly wind flow around an upper level low to the south brought air cooled by the waters of Lake Michigan into the moist air mass over the region. This produced dense fog, with visibilities of 1/4 mile or less, generally along and southeast of a Sheboygan to Wisconsin Dells line.